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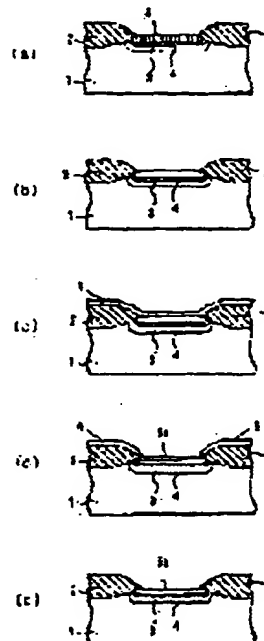
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(54) SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREOF

(57)Abstract:

PROBLEM TO BE SOLVED: To make smooth the interface of a Co silicide film, by providing a Ga injection layer having an impurity concn. peak at a shallower position than the interface between a CoSi₂ layer and constituent Si of a semiconductor substrate, and forming impurity regions in lower portions of the Ge layer.

SOLUTION: A Ge injection layer 4 formed on the cleaned surface of a semiconductor substrate 1 has a peak at a deeper position than that of an initial Co silicide layer formed later, and is adjusted so that the peak locates approximately on or above the interface between a finally formed Co silicide layer 5 and constituent Si of the substrate 1. A Co film 6 is formed and reacted with the Si of the substrate 1 at impurity regions to form a first Co silicide film 5a, which is then heat treated to finally obtain a second CoSi₂ film 5a. Thus, this film 5a is made smooth on the semiconductor substrate 1 surface.



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